Flightfax

ARMY AVIATION RISK-MANAGEMENT INFORMATION

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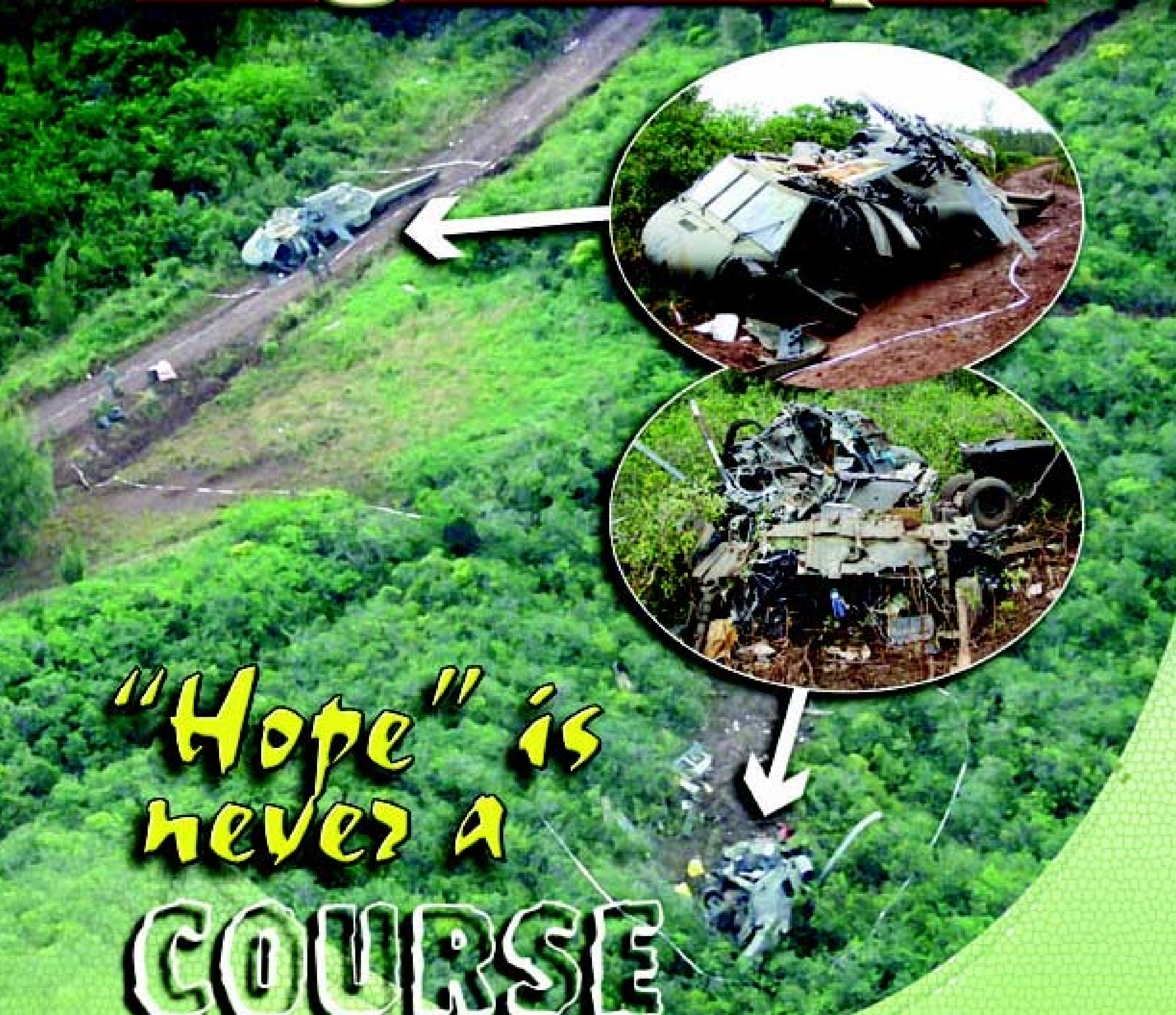

"Hope" is never a COURSE OF ACTION!

Flightfax

ARMY AVIATION RISK-MANAGEMENT INFORMATION

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CONTENTS

DASAF's corner 3-4

Hope is never a course of action 5-6-7

Cell phones are FOD, too 8-9

Carry on devices require AWRs.....9

Laser Q & A Part III 10-11

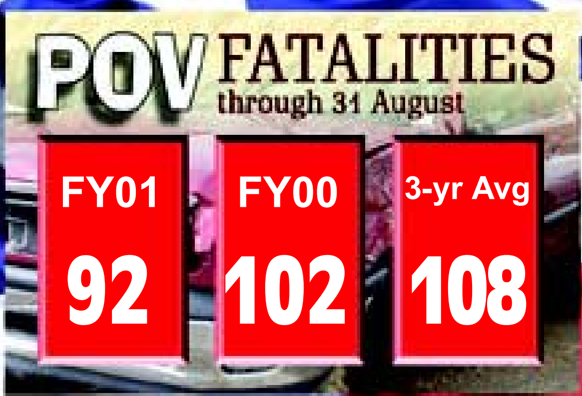
ASOC update 12-13

ASOC contacts 13

Chinook word of caution 14

Maintenance reminder...............14

Mishaps 15



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James E. Simmons
Brigadier General, US Army
Commanding

DASAF's CORNER

from the Director of Army Safety

Know the limits of your aircraft

Having been in this job just a few short months, I can already see the truth in the old adage that "There are no new accidents." Accident investigations continue to reveal recurring problems—such as power management. The account of Black Hawk crashes in this issue of Flightfax shows that it's critical for aviators to clearly understand how power-limited aircraft will perform during all phases of assigned missions.

Understanding and applying available aircraft power throughout the mission is critical, and I do not know if we are doing a good job of either. The Army continues to deploy and operate in demanding environments; unfortunately, most of us who are deploying are accustomed to operating from installations located near sea level. When we arrive in a high altitude environment, such as Bosnia; a hot desert environment like Kuwait; or a hot, high environment such as Fort Irwin, we find ourselves operating in vastly different conditions.

It is crucial to know and fully understand the limits of your aircraft. Commanders must understand how power performance affects their aircraft and how it will affect the mission. Sending an aircraft out on a mission knowing it will not be able to hover out-of-ground effect until it burns off fuel because the demand for hover power exceeds the capabilities of the aircraft, and pilot, requires careful consideration and management of the risks. Commanders must use solid risk-based planning and evaluation processes that will reduce the hazards associated with operating in marginal-power conditions.

While commanders are ultimately responsible for mission success, pilots who operate their aircraft are responsible for planning and flying their aircraft safely based on known hazard within the environment in which they must operate. Pilots who fly the OH-58D, as well as the AH-64, are well aware of the fact that adding munitions to the aircraft increases weight, which puts you operating at or near your maximum gross weight for the aircraft.

Everyone knows how to complete a PPC (performance planning card), but do you really understand what those numbers on the card are telling you? They are telling you what power is available for the conditions you are operating in, what your maximum power limits are, and what conditions will place you at your maximum power limits. Those of us who flew single-engine attack aircraft know you can't power your way out of every problem. The idea of just pulling an armload of collective has to change.

With the weight and operating conditions of today's aircraft, you must evaluate each and every potential hazard associated with the environmental condition in which you plan to operate. In other words, landing with a heavy aircraft and a 20-knot tail wind can spell disaster. High gross weight, high altitude, high-density altitudes, and executing a downwind approach affect the aircraft performance—and that is something that you may not see on your PPC.

Pilots who flew the older Army aircraft were taught and learned about power management using a stubby pencil. They also had the opportunity to learn from mentors who had already "been there, done that" and knew the skill it took to operate safely with limited power.

Power management problems are only going to get worse as we start using authorized automated performance planning programs, which are designed to perform the calculations and then print a PPC. Automation has resulted in the stubby pencil's demise. It's great that technology can do the calculations and give you the data, but the aircrew still must be aware of what the data actually means and how it will affect their mission.

Pilots who are assigned to Longbow units must remember that they have a mix of 701 and 701C engines, and the power available is different. If you fly an aircraft with a 701C engine and then you get into an aircraft with a 701 engine, you will now have less power. Know the type engine in your aircraft before you get into a situation that could require more power than your engine is capable of producing.

Training, continual awareness, and constant performance planning are key to preventing mishaps involving power-management procedures.

■ The initial Aircraft Qualification Courses (AQCs) are improving the performance planning training. However, units still need to focus on what the PPC is telling you and understand that it is not telling you what the maximum power the crew is going to ask from the aircraft will be. Everyone needs to have a full understanding of what the charts can give you.

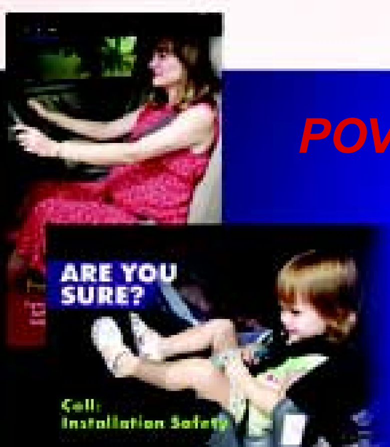
■ The Safety Center has produced a video called Power Matters, PIN: 711267, which is available to you at your local TASC or via the Internet at http://afishp6.afis.osd.mil/dodimagery/davis/.

■ Simulators are good tools for teaching pilots about the power margins of what they have computed versus what they face in operating conditions, such as high gross weight, density altitude and so on. Use them! The new Longbow crew trainer is a long overdue system to help us in this critical area.

■ The Colorado National Guard teaches a high-altitude power management course. Their number is (970) 524-7702 ext 2915. Ask for CW4 John Such.

Pay attention; don't run out of airspeed, altitude, power, and great ideas at the critical time when you need all four. Fly safe.

—BG James E. Simmons



POV accidents still number one killer

In this issue, we have included two pullout posters concerned with privately owned vehicle (POV) safety. POV accidents are the leading cause of death among U.S. Army soldiers. The Chief of Staff of the Army, General Erik K. Shinseki, has set goals to cut the numbers of POV deaths in Army families. The safety of you and of your families is paramount.

"Hope" is never a COURSE OF ACTION

Aviation has proven time and again that it is the most maneuverable and lethal weapons system on today's ever-changing battlefield. During the last several years, Army aviation has found itself involved in a myriad of atypical missions. Atypical because the mission requested doesn't exactly fit into the unit's Mission Essential Task List (METL). These missions, rather than a one-time requirement, are becoming the "norm". As the force structure continues to shrink, and the mission load continues to grow, aviation units will continually find themselves asked to perform multifaceted, highly complex missions in unfamiliar airspace.

Select aviation units may be the "only show in town", and our inherent capabilities provide a dimension to the battlefield that no other Combat Arm can produce. And it is because of this complexity and variation that we must stay ever vigilant about mission execution. Leaders must guard against complacency, loss of risk assessment objectivity, or the failure to make risk management a continuous process. There is no substitute for thorough mission planning, detailed rehearsals, and strict adherence to risk reduction and control measures ... these things are an aviator's Intelligence Preparation of the Battlefield (IPB) ... and you ***MUST*** know your enemy.

Unfortunately, because of our high OPTEMPO, many units are forced to rapidly transition from one complex mission profile to another. Such frequency may cause the atypical missions to be perceived as routine, where unvigilant leaders allow these missions to be treated with less than appropriate planning and oversight.

An analysis of recent mishaps illustrates how shortfalls in the planning process, coupled with the absence of institutionalized risk management and leader involvement, can foster an environment of mission planning complacency. In two cases, the missions involved multi-ship, sling load operations under night vision goggles (NVD) conditions. Coincidentally, these units had successfully executed a number of varied missions in the preceding six months, which may have further contributed to their false sense of security. The units failed to recognize the cumulative effects of risk, and leaders allowed risk reduction decisions to be made at an inappropriate level. Instead both units relied on prior planning and crew experience to fill in the blanks for basic, thorough, detailed planning and risk assessment.

In both cases the missions were received well in advance, and planning was assigned to junior officers. This was considered adequate because similar scenarios had just been executed without incident weeks earlier. However, we all know that the first step in sound mission planning is to conduct a complete mission analysis (MDMP). Planners must also ensure that all members understand the commander's intent, ground tactical plan, reverse planning sequence, risk assessment, and any control measures/abort criteria that can effect mission execution. This is commonly referred to as the 5x "W"s process: who, what, when, where and why. The "How" is determined by the commander and S-3. Once the plan is set the aviators must begin their task of thorough mission planning to execute the "How". Finally we must REHEARSE ... REHEARSE ... REHEARSE to ensure EVERYONE knows their role ... NO CONFUSION!

Unfortunately, this is where these units allowed their false sense of security to fly lead. As stated, these missions were planned as NVG, Air Assault missions into confined LZ's or unfamiliar terrain. On one particular mission, the winds were high, the clouds were low, and the rain was heavy. Somewhere in the decision cycle, in a flight of four aircraft flying a staggered right formation, it was determined that the heaviest, least maneuverable (HMMWV sling load) aircraft would fly as Chalk 4 instead of Chalk 1. Additionally, the ingress route was changed at the PZ because of deteriorating weather. This change now required the crews to negotiate a 180-degree right-hand turn to final at the LZ. In a similar incident, a UH-60 unit previously identified a weakness in their ability to execute NVG sling load operations. However, the command elected not to do anything about it, and the mission was attempted by an inexperienced flight crew. Subsequent to "brown out" during load pickup, the crew attempted to fly out of the cloud. Instead they allowed the load to hit the ground, and the Black Hawk ultimately crashed in a

right nose low attitude and rolled across the desert floor. Final result in one incident; six personnel dead, nearly a dozen injured, two UH-60s and one HMMWV completely destroyed. Final result in the second incident; five personnel injured, the aircraft and HMMWV were totally demolished.

In both scenarios, there was little supervision or mentoring during the mission planning process to ensure all facets (risks) of the operation were examined in depth, to identify hazards, and modify courses of action to implement the necessary risk mitigation/reduction controls. Both scenarios evidenced crew overconfidence in their ability to handle situations even as cumulative effects rapidly reduced the margin for error. Decision makers, (senior commanders, unit commanders/SPs/IPs) must remain objective enough to recognize the escalating cumulative effects of a number of seemingly benign individual risks. They are responsible for analyzing continuous feedback from mission focused subordinate leaders in order to identify risks that can adversely effect mission execution. Once the planning process is complete, it is absolutely imperative that every potential branch or sequel is played out and rehearsed. Crews and leaders at all levels must clearly understand the hazards, risks and controls that have been put into place to reduce mission risks. Without a clear understanding of these elements, all participants can't actively recognize and assess changing hazards and the associated increase in risk. A rehearsal is a key vehicle for establishing this common understanding and essential to mission success.

> **The old adage is true: "The only stupid question is the one that isn't asked." Questions must be voiced regardless of the perception "these guys will think I'm dumb"...better dumb than dead**

The Center for Army Lessons Learned (CALL), sites rehearsals as highly effective and an excellent tool in risk control and reduction. Moreover, it is fundamentally critical that all mission personnel attend and participate in the rehearsal. That is the time to voice concerns, ask questions, and iron out confusion. The rehearsal must cover all aspects of the mission: staging plan, loading plan, enroute plan, landing plan, FARP plan, battle position occupation, screen line establishment ... from primary ingress and egress routes, to any reasonably expected or anticipated contingency that may be implemented. It must be clear in everyone's mind exactly what will be required during every phase of the operation, and how outside factors can change mission requirements.

Senior aviators/leaders and crewmembers have a professional, if not moral responsibility to voice all concerns, real or perceived, any time their "comfort threshold" is broken. The old adage is true; *"The only stupid question is the one that isn't asked."* Questions must be voiced regardless of the perception i.e. "*my suggestions are always ignored*" or *"these guys will think I'm dumb"* ... well, better dumb than dead!

Mission accomplishment is what we as leaders always strive to achieve. It must be balanced to ensure the safety of all involved. The primary method of accomplishing this is detailed planning, which includes in-depth rehearsals and everyone's input. Don't be a shrinking violet. When a point of concern becomes evident, such as deteriorating weather, stand up, be counted, and let your concerns be known. Never allow complacency, or fear of ridicule, determine your actions in and out of the cockpit… or let yourself become the guy that has to look in the mirror and say: *"If only I had said something, they might be alive today."* If you're struggling with the decision to stand up, picture yourself at a memorial service for the crew, or in an interview with the investigation board. Would you be equally convinced or could you justify your actions?… and if not, take action—do the right thing! Remember, ***"Hope is never a course of action!"***

Cell phones are FOD, too

There has been a lot of talk lately concerning hand-held portable electronic devices. I'd like to relay a story about cellular telephones.

A lot of crewmembers carry a cell phone when they fly as an additional means of communications. Most of us know that these devices are not to be in the "on" position when we fly. *(See related story on page 9.)*

My story is about a routine training flight in a CH-47D. This particular flight had been scheduled previously, but was delayed by maintenance. If you aren't familiar with the Chinook, I will tell you it takes a while to get everyone and everything together to get "Ol' Windy" ready to fly. We completed the preflight, mission brief, and prepared for engine start. We had crammed a lot into a short time frame, but we were going to make our proposed take-off time and get the training underway. Everything was going normally now. We arrived at the landing strip, did our before landing, then made the approach to the training loads where the flight engineer (FE) and crew chief disembarked and rigged the load.

With the crew all back on board, we set the hook selector, and the FE guided us over the load. We did a "Shepard hook" with minimal directions, picked up the 10,000 pound load, checked our engine and transmission instruments, torque, then made the take-off. As we proceeded to turn crosswind, the SP stated, "I can't find my cell phone." He normally kept it in his right leg pocket and it now wasn't there. He continued to check all his pockets—no cell phone! We were on downwind now, performing the before landing checks and discussing where his phone might be (probably not a real great time to be discussing much of anything besides the task at hand), but with the checks complete, the load stable, we suggested that perhaps he had stuffed it into his helmet bag.

He thought about it for a moment, (we were now on final, hook armed) and he stated "No, I didn't put it in my helmet bag." We put the load on the ground, released the slings, hovered sideways and landed the aircraft abeam the load. Now that the FE and crew chief were no longer busy with their crew duties and the load, they checked the SP's helmet bag. NO PHONE! We talked about it for another minute in the LZ, and then we all decided to shut down and ascertain where the SP's phone really was.

We shut down and got out of our seats to begin the search. I got the idea to fire up my cell phone and call the SP's number. Even an aging aviator with some high-frequency hearing loss could pick up the ring of his cell phone coming from the aft pylon! The FE climbed on top, opened the right aft pylon access door, and there it was, just sitting on the bulkhead ringing away!

Thankfully, it wasn't anywhere that it would have interfered with the controls (like the pilot valve to the aft upper dual boost actuator)! We

Carry-on electronic devices require AWRs

Speaking of carry-on electronic devices aboard helicopters… Pilots-in-command are responsible to ensure that such devices are not used aboard the aircraft unless an airworthiness release (AWR) has been issued by the Aviation and Missile Command (AMCOM) specifically authorizing its use. Electromagnetic testing criteria for Army helicopters are strict. The typical Army Com/Nav mission is tougher, so the electromagnetic testing standards are tougher.

Army Regulation 70-62, Airworthiness Qualification of U.S. Army Aircraft Systems, 7 July 2000, paragraph 2-7b (available from the U.S. Army Publishing Agency Home Page, http://www.usapa.army.mil/) specifies the types of devices that require airworthiness releases on all Army aircraft.

—condensed from the Black Hawk newsletter

retrieved the unharmed cell phone, turned our phones back off, secured the aft pylon access door, then we reviewed what had happened. As I mentioned, we split the preflight up between the three aviators for efficiency. The SP had checked the top, particularly the aft pylon. His pocket was inadvertently left open, and the phone popped out and into the aft pylon area when he climbed up to check the aft head.

Had he not been assertive and insist that he was sure it was not in his helmet bag or otherwise, we may very well have not elected to perform a shutdown and find his phone. He was mindful that he had not turned it off, it was not where he kept it, and insistent enough that he directed the crew actions which would affect the temporary delay in our training mission to locate it.

The rest is history. We finished our flight and de-briefed. We all learned several things that flight period, not just about the flight maneuvers.

1. Air Crew Coordination is paramount to the safe operation of our aircraft. When a crewmember expresses concern over any item that pertains to a flight, listen attentively. The experience and knowledge they share should perk your ears.

2. Humble pie is very filling and just one slice will do.

3. A little humility is better than a lot of accident.

4. Perform as a team—that's why all of you are there.

5. FOD is FOD. Phones are FOD!

6. May all of your crew errors end up as a learning experience, heightening your awareness of what simple little mistakes can lead to, rather than a mishap.

—CW4 David C. Byorth, ASO, 7-158th Aviation Regiment (Heavy Helicopter) Bldg # 7027, Hood AAF Ft Hood, TX 76544-5081 (254) 288-5019, DSN 738-5019

Laser Q & A Session:

Part III, Laser-Related Injuries

In the first two articles of our laser series, we answered questions on the nature of lasers and how you can protect yourself from exposure. The final question remains: What do you do if you're in the wrong place at the wrong time -if you think you've been lased?

Q: What is the most important thing to remember if I am lased?

A: Remain calm. Being lased is comparable to being hit by a sniper . . . it's sudden, unexpected and potentially very dangerous. But, the odds are very much in your favor. Most incidents produce temporary symptoms and no permanent loss of sight. While serious injuries can occur, they are atypical in flight scenarios.

Q: If I am lased, what is the least effect I might experience?

A: A temporary dazzle effect, similar to what you might expect from any sudden bright light in your face, or flash blindness, which can last up to minutes, are the least injurious effects you may encounter. While some loss of visual acuity may occur initially, neither condition will result in permanent loss of sight. However, at low altitudes, this can have catastrophic results.

Q: What is the range of symptoms associated with laser injuries?

A: Laser-related injuries depend upon the type of laser involved, its power and range from source. Injuries can range from temporary (minutes) loss of vision to serious retinal burns and hemorrhage (bleeding). Pain may or may not occur. Some of these injuries result in no discomfort other than a mild watering of the eyes. Injuries involving the cornea, even relatively mild ones, can result in excruciating pain. With or without symptoms, any laser exposure can be serious and should not be discounted.

Q: What type of symptoms will I experience if I receive a retinal burn or hemorrhage?

A: You may or may not experience pain depending upon the location of the injury. In the event of a retinal hemorrhage, your vision will begin to blur and become clouded as blood leaks into the middle of the eye. As hemorrhaging continues, vision may be totally obscured in the affected eye. While retinal hemorrhages are sometimes treated surgically, and the eye may remain clouded for several months, the eye is remarkably good at repairing itself.

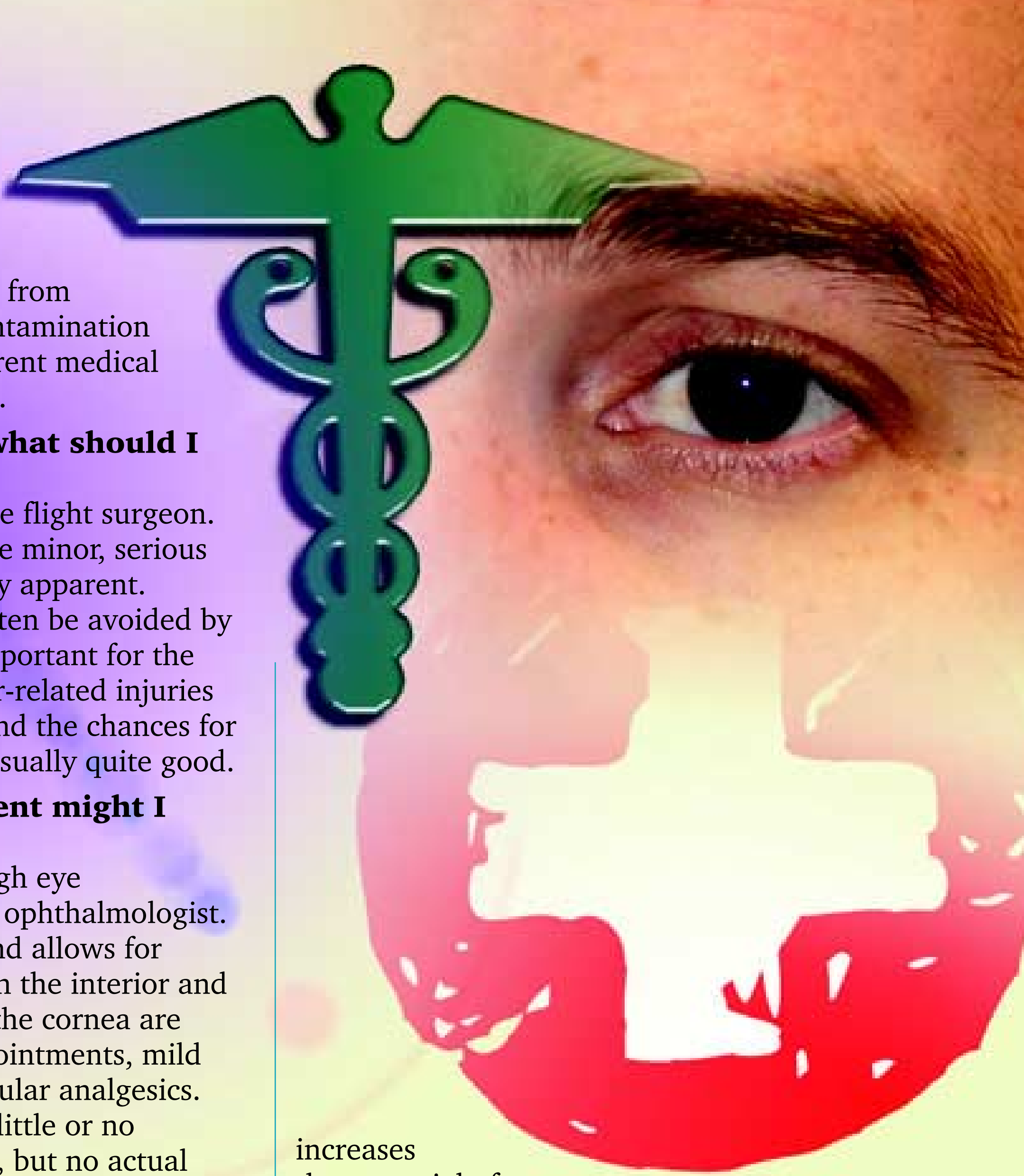
For retinal burns, some vision loss may occur, again depending upon the location of the injury. In severe cases, such as those involving pulsed lasers, the intense heat produced will superheat the tissue causing mechanical disruption, spreading the damage to surrounding areas. The mechanical force involved can blow a hole through the retina resulting in additional hemorrhaging and possible severe vision loss.

Q: Should physical damage be my only concern?

A: As with any injury, shock and psychological trauma also can occur. This is especially true with any type of retinal hemorrhage. The trauma surrounding the event, and the fear of loss of vision, can be overwhelming. Over the long term, the psychological stress experienced will depend upon the aviator's initial response to the injury, his knowledge and training about laser weapons, and the treatment received. The emotional stress received from a laser injury should not be overlooked.

Q: If I suffer a laser injury, are there steps I can take to reduce its severity?

A: Although there is little you can do for laser exposures, there is a lot you should not do. DO NOT RUB YOUR EYES. Cases have been reported where victims rubbing their eyes have actually caused abrasions and worsened their injuries. Keep hands and fingers away from the eyes to avoid possible contamination and sources of infection. Current medical advice is not to patch the eye.



Q: Once I have landed, what should I do?

A: Immediately report to the flight surgeon. While laser injuries can be minor, serious injuries are not always readily apparent. Medical complications can often be avoided by immediate treatment. It is important for the victim to remember that laser-related injuries are seldom life threatening and the chances for at least partial recovery are usually quite good.

Q: What medical treatment might I expect?

A: Initially, expect a thorough eye examination by a trained ophthalmologist. This is standard procedure and allows for extensive examination of both the interior and exterior of the eye. Burns to the cornea are often treated with antibiotic ointments, mild pain relievers, and intramuscular analgesics. Small non-foveal burns with little or no hemorrhaging are monitored, but no actual medical treatment is necessary. More serious burns and hemorrhaging may require surgical intervention.

Q: Where can I go for further information?

A: FM 8-50 Prevention and Medical Management of Laser Injuries (1990) is an excellent source of information, though somewhat dated. Additional information can be secured from the U.S. Army Center for Health Promotion and Preventive Medicine (http://chppm-www.apgea.army.mil).

In summary

Laser rangefinders/designators are a vital part of effective tactical weaponry, however, accidental exposure is a serious potential. Also, the availability of inexpensive laser pointers increases the potential of laser exposure. While the external threat of laser exposure is increasing, it is worth noting that most laser eye injuries to date have been self-inflicted.

Laser protection is accessible and effective. Unfortunately, because of the variety of lasers available, protective devices must be coordinated with the greatest laser exposure risks. No one laser protective device can protect from all wavelengths and energies.

There are no simple answers for laser protection. For the aviator, the potential for laser exposure is just another situation that requires vigilance, training, knowledge and a cool head.

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–Jim Hauser, product engineer, PM-AES, DSN 897-4267, (256) 313-4267,

ASOC UPDATE—It's not your father's ASO Course

The six-week Aviation Safety Officer Course (ASOC), as it is presented today, differs greatly from the course that produced many of today's ASOs. Many ASOs in the field have long since graduated the ASOC and are unaware of the current curriculum now taught. This article gives you an idea of how today's ASO course is presented in three phases.

PHASE I

The first phase, "Safety Management", consists of a basic introduction of staff and students, along with homework assignments and daily questions. The Army Safety Program and other subjects like: Risk Management, OSHA, HAZCOM, Ergonomics, Environmental, and POV safety are introduced the first week. Students begin daily questions in the middle of the first week, as well as impromptu presentations. A swim test is administered for pre-dunker. Physical training is conducted three times a week while in the course.

PHASE II

The second phase incorporates duties and responsibilities of an ASO. During this phase, students participate in 9D5 multi-place egress device (Dunker), and the 9B6 multi-station spatial disorientation demonstrator (MSDD) in Florida.

CW4 "D" Smith, the new ASOC director, has incorporated some practical exercises into the course that give students a feel for the real thing. One example is group participation in unit safety meeting presentations. The Aviation Branch Safety Office (ABSO), here at Fort Rucker, will visit during this block of instruction to explain who they are and what they are about. During this phase of training the class travels to another installation or facility to perform an Aviation Accident Prevention Survey (AAPS). These surveys have proven to be invaluable to both the students and the unit being visited. This training further enhances the ability of an ASO to understand the dynamics and the how-to in performing semi-annual surveys.

PHASE III

The final phase is the investigation portion. It introduces students to the requirements of accident reporting and recording, and his or her responsibilities in the event an accident occurs within or outside their organization. All students participate in an accident investigation practical exercise that will be out-briefed upon completion. We also invite the Department of the Army Regional Representative (DARR) to give a short presentation towards the end of course. Additionally, Dr. Brenda Miller, Chief of the Training Division here at the Safety Center, briefs on the Career Program 12 course for civilians.

THINGS TO THINK ABOUT

Considerations for those individuals who will be attending, or would like to attend, future ASO classes are:

■ First, enrollment in the course is done through your personnel administration center (PAC), or whoever coordinates training/schools (S3 or G3) within your organization. You must be registered in the Army Training Referral and Registration System (ATRRS) to get slotted for the course. The US Army Safety Center does not enroll students.

■ Classes begin on Monday (unless it is a holiday), and in-processing is done in our classroom (Room 7, Bldg. 5206) directly across from the UH-1H simulator building at Fort Rucker. We will sign you into and out of Ft. Rucker.

■ Ensure your orders state that "You are authorized variations to proceed to additional places as may be necessary to accomplish the mission. Dual Lodging Authorized." This is a must, because of the off-site training and your requirement to maintain lodging at Fort Rucker as well.

■ During the course, you will be given a large amount of reference material. If you are traveling by air, you may want your orders to contain authorization for mailing these books home.

■ Duty uniform is the Army BDU (not Aviation BDU) for military personnel, and dress slacks, and shirt with collar for civilians.

■ Bring your Army issued PT uniform, a swimsuit, and a current up-slip (DA Form 4186). All personnel should try to have these things as complete as possible before attending the course. The better prepared you are the easier the transition.

■ Because the ASO course is an MOS-producing course, you will be required to pass all examinations and attend all classes. Do not plan on scheduling routine appointments during training.

Information about the ASOC and points of contact are available on the safety center website at http://safety.army.mil. Just click the yellow button that reads Training, and then click Training Resources, then Resident Training Courses. You will see general information for the Aviation Safety Officer Course.

—Lee Helbig, USASC – Training, DSN 558-9868 (334) 255-9868, helbigl@safetycenter.army.mil

Points of contact at the Aviation Safety Officer Course are:

CW4 Darrel Smith, Course Director, (334) 255-2376 (DSN 558), smithd@safetycenter.army.mil

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NCO CORNER

Chinook Word of Caution:

What you don't know about the center cargo hook can cause your forward & aft hooks to open.

In the Chinook community there have been several Class B accidents involving the center cargo hook when the forward and aft hooks are being used for tandem load operations. Some crewmembers are rotating the center cargo hook up inside the aircraft to allow better viewing of both the forward and aft hooks. This action has caused two different problems resulting in tandem loads being jettisoned.

The first problem occurred when the center cargo hook was rotated up inside the aircraft, and placed on the floor out of the way, with the manual release handle in the "UP" position in accordance with the Operators Manual. As the center cargo hook was lowered back into its normal position it made contact with the manual release handle, causing both forward and aft hooks to open, which jettisoned the external load.

The second problem occurred when the manual release cable was stretched when the center hook was rotated up into the aircraft and placed on the floor. This action caused the cable to separate from the crimped end of the cable housing. As the manual release handle was lowered into its normal position the cable didn't reset itself into the cable housing. Without the crimped end of the cable actually being "crimped", this caused the fwd and aft cargo hooks to inadvertently release the external load.

Rotating the center cargo hook up into the aircraft onto the floor is not authorized. The hook may be rotated to allow for load hook-up and/or inspection, but should never be rotated past vertical.

—MSG Curtis, USASC Cargo Branch, DSN 558-9853 (334)255-9853, curtisx@safetycenter.army.mil

—SSG Robert Simpson, DES Cargo Branch DSN 558-1439, Robert.simpson@rucker.army.mil

Maintenance Reminder

When performing any routine inspection, 10hour/14 day, 30 hour/42 day or 100 hour phase, etc. Ensure that all Technical Manual's (TM), Technical Bulletin's, (TB), Aviation Safety Action Message's, (ASAM) and Safety-Of-Flight (SOF) instructions are complied with.

A recent 30-hour, 42-day inspection found an item that should have been removed from service several years ago, at a 500-hour phase inspection, in accordance with a 1994 SOF message. The item, an elastomeric spindle thrust bearing, was found delaminated. Fortunately it was found and replaced before failure, but damage was done to the spindle. Accurate recording of inspection requirements mandated by TM's/TB's/ASAMS/SOF is imperative to prevent similar occurrences. Failure to comply with these messages is in violation of Army regulations and other maintenance standards. Special attention must be paid to aircraft in transit or being transferred between units. If there is any question whether the new procedures outlined in the ASAM's/SOF's/TB's have been applied, always assume that they have not been applied until proven otherwise.

—Bob Giffin, System Safety Manager, Black Hawk, USASC, DSN 558-3630 (334) 255-3650, giffinr@safetycenter.army.mil

Accident Briefs

Information based on preliminary reports of aircraft accidents

AH-1

Class C
F model

■ Aircraft was in cruise flight when the crew heard a loud report, followed by extreme vibration and decay of aircraft's engine power. Crew initiated autorotation and aircraft landed hard in a cornfield. Aircraft engine was damaged. One crewmember was hospitalized for overnight observation.

AH-64

Class C
A model

■ Aircraft struck a large bird in flight. Aircraft experienced some vibration but was landed without further incident. One blade received a large dent near the tip; replacement required.

Class E
D model

■ During a pinnacle approach to landing the aircraft struck a rock with the aft tailboom. Crew landed the aircraft without any further damage. The IFF antenna was replaced. The aircraft was released for flight.

CH-47

Class C
D model

■ Post maintenance test flight inspection revealed damage to aircraft's aft main rotor blade, blade damper and rotor head component damage. Aft green blade droop stop was found to be missing.

MH-6

Class B
J model

■ While conducting a night approach under Night Vision Goggles terminating with a landing to a sloped surface, the aircraft experienced an aft rolling motion that placed the aircraft in an unrecoverable position. Major damage occurred to aircraft. Two injuries.

OH-58

Class C
D-I model

■ While conducting NVG confined area operations and snow/sand/dust training, the IP elected to depart the confined area using a terrain flight take off, passing between two trees. The aircraft struck wires and landed hard, damaging the landing gear, tail boom, and stinger. The IP and PI were uninjured.

Class B
D-R model

During manual field authorized digital electronic control (FADEC) operations, aircraft landed hard.

D-I model

■ During the termination phase of a simulated engine failure with turn to terminate with power, at approximately seven feet above ground level, the aircraft's rate of descent increased dramatically. The aircraft impacted the lane in a level attitude, sliding approximately 60 feet. The aircraft's front cross tube was broken at both mounting points, and the aft cross tube was bent into the fuselage. The aircraft's wire strike protection system and the UHF antenna were also damaged.

Class E
D-I model

■ Aircraft was on Night Vision Goggle reconnaissance mission when the thermal imaging system failed. Attempts to regain system failed. Aircraft was landed without further incident. Maintenance troubleshooting on failed TIS was completed and aircraft was released for flight.

UC-35

Class E
A model

■ During cruise fight at FL 41O, crew heard a loud "bang" and cabin pressure VSI showed approximately 3000 fpm climb rate, then began to slowly stabilize. Crew put on oxygen and began rapid descent below 10,000 feet. Airplane was landed with no further incident. Co-pilot window was cracked approximately one-half inch down from leading to trailing edge.

UH-60

Class C
A model

■ During engine run-up, the No. 2 engine required two attempts to get it started. Then the engine failed the health indicator test check. The HIT Check was approximately 14 degrees celsius out of limits. The crew returned to parking to abort the flight. After retarding the No. 2 engine power control lever to idle, the engine made two low rumbling noises and flamed out. The engine borescope revealed damage to compressor blades. Foreign object damage is suspected, although no proof of FOD could be found. The engine was removed and sent to higher level maintenance for repair.

Class D
A model

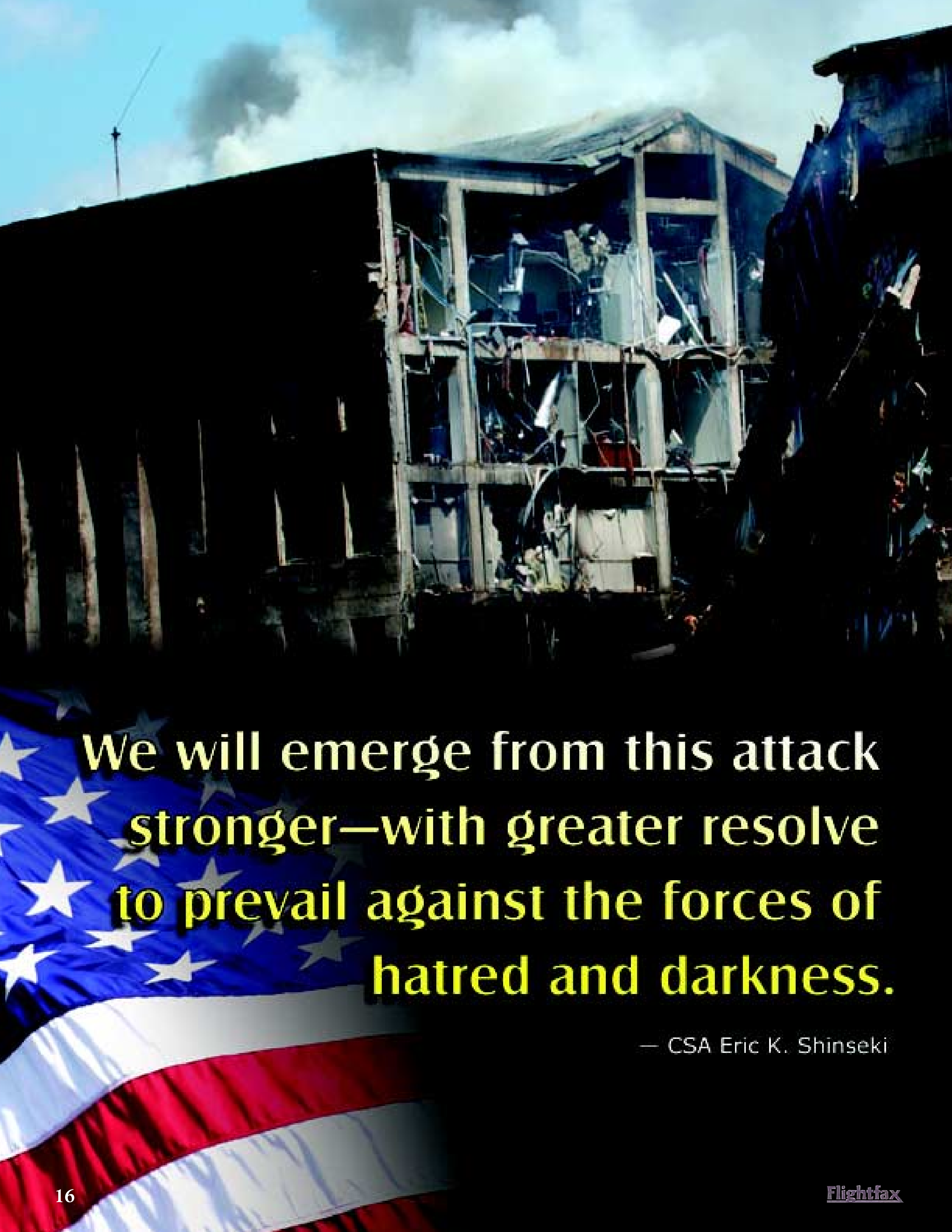
■ While on takeoff from a confined area, with PC at the controls in the right seat, aircraft struck a tree branch with the right side of the rotor. Aircraft made a precautionary landing at an adjacent landing zone without further incident. Upon inspection of rotor blades, rotor tip cap was found to be damaged. The blade tip cap was replaced.

Aviation Related

Class C

■ When an MH-47E aircraft departed landing pad, a 4'X 4' section of plywood became airborne and struck a construction worker who was in the area.

■ A team of six soldiers towed an aircraft from a hangar to a parking pad. The tow team did not install chocks. The aircraft rolled approximately 100 meters unattended down an incline, making contact with ground support equipment, stored aircraft auxiliary fuel tanks and a storage building.


We will emerge from this attack stronger—with greater resolve to prevail against the forces of hatred and darkness.
— CSA Eric K. Shinseki